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ABSTRACT

A method for selecting an antenna direction setting for optimum signal reception prior to channel equalization provides a set of metrics, referred to as channel quality metrics (CQM), that characterize the quality of the received signal for a given antenna setting and a generic algorithm that uses these metrics to select the antenna setting for an optimum reception. This invention utilizes five main CQMs: a Signal Strength Metric (SSM), a minimum mean squared error of a decision feedback equalizer (MMSE (DFE)) channel quality metric, a MMSE for a linear equalizer (MMSE(LE)) channel quality metric, a Spectral Flatness Metric (SFM) and an interference degradation metric (IDM).